

Figure 1

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25

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BLAST search
against
SwissProt



Identify gene family

ClustalW comparison
with SwissProt top hit



Demonstrates global alignment

BLAST against non-
redundant GPCR db



Demonstrates GPCR sub-family

Figure 2

ClustalW Alignment of PFI-019 with P2Y purinoceptor 1 (P2Y1)

| | | |
|----|---------|--|
| 5 | PFI-019 | MNEPLDYLA-NASDFPDYA---AAFNG-----CTDENIPLKMHYLPVIYGI |
| | P2Y1 | MTEVLWPAVPNGTDAAFLAGPGSSWGNSTVASTAAVSSSFKCALTKTGFQFYYPVAVYIL |
| | | *.* * .*:* . * :::** *: : :::***:* : |
| 10 | PFI-019 | IFLVGFPGNAVVISTYIFKMRPWKSSTIIMLNLA CTDL LYLTSLPFLIHYYASGENWIFG |
| | P2Y1 | VFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALIFYFENKTDWIFG |
| | | :*::** **:*. * :::*:**.. ::*:* ** :*:** : ** **.* * . :**** |
| 15 | PFI-019 | DFMCKFIRFSFHFNLYSSILFLTCFSIFRYCVIIHPMSCFSIHKTRCAVVACAVVWIISL |
| | P2Y1 | DAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNAICISVLVWLIVV |
| | | * ***: ** **.***.***.***.* **.* :::*:... *.: *: ..:***: : |
| 20 | PFI-019 | VAVIPMTFLITSTNRTNRS-ACLDLTSSDELNTIKWYNLILTATTFCFLPLVIVTLCYTTI |
| | P2Y1 | VAISPILFYSGTGVRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLVLILGCYGLI |
| | | **:* *: * : *.**::* * **.:*.: *: *: **:***: : ** * |
| 25 | PFI-019 | IHTLTHGLQTDSCCLKQKARRLTILLLLAFYVCFLPFHILRVIRIESRLLSIS---CSIEN |
| | P2Y1 | VRALIYKDLDNSPLRRKSIYLVIIVLTVFAVSYPFHVMKTMNLRARLDFQTPAMCAFND |
| | | :::* : :* **:*** *.*:* * *.*:***:.....** : *::: |
| 30 | PFI-019 | QIHEAYIVSRPLAALNTFGNLLLYVVSDNFQQAVCSTVR---CKVSGNLEQ-AKKISYS |
| | P2Y1 | RVYATYQVTRGLASLNSCVDPIYFLAGDTFRRLSRATRKASRRSEANLQSKSEDMTLN |
| | | ::: :* *: * **:*** : :**...*. *:: :. :.* : ..**.: :::: . |
| | PFI-019 | NNP----- |
| | P2Y1 | ILPEFKQNGDTSL |
| | | * |

Format "SAS2001"

Figure 3: Stimulation of PFI-019 by 2-chloro-ATP

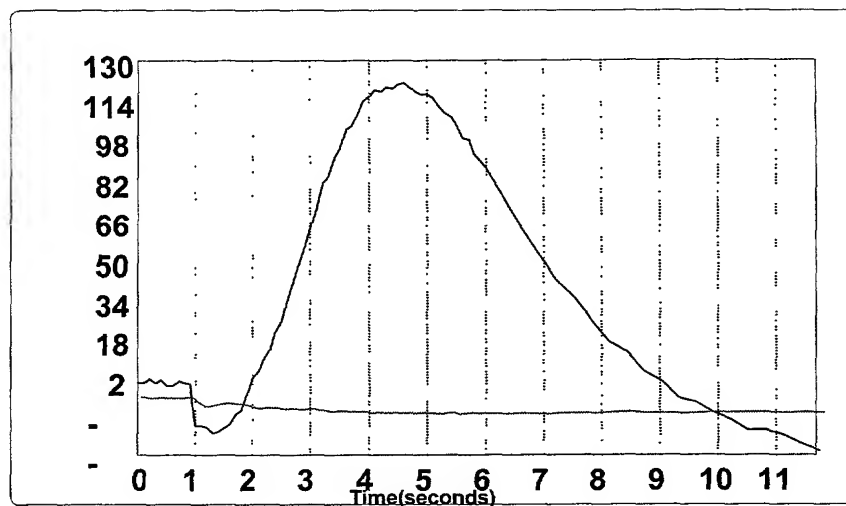


Figure 4: Stimulation of PFI-019 by 2-methyl-thio-ATP

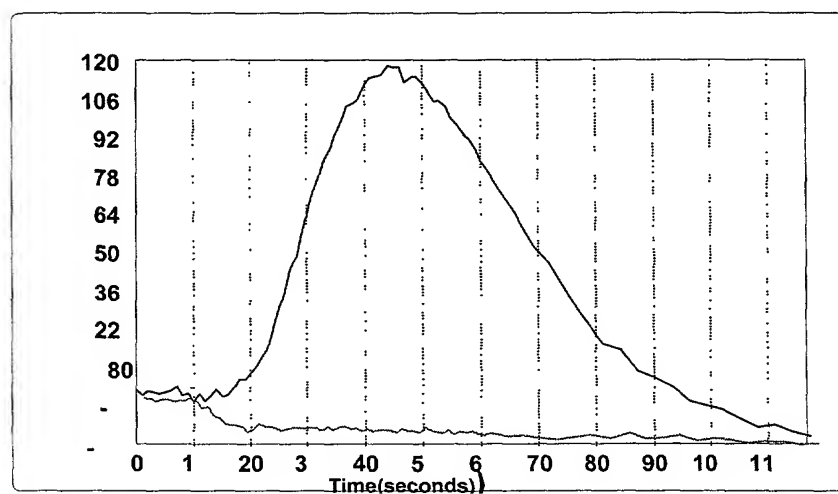


Figure 5: Stimulation of PFI-019 by 2-methyl-thio-ADP

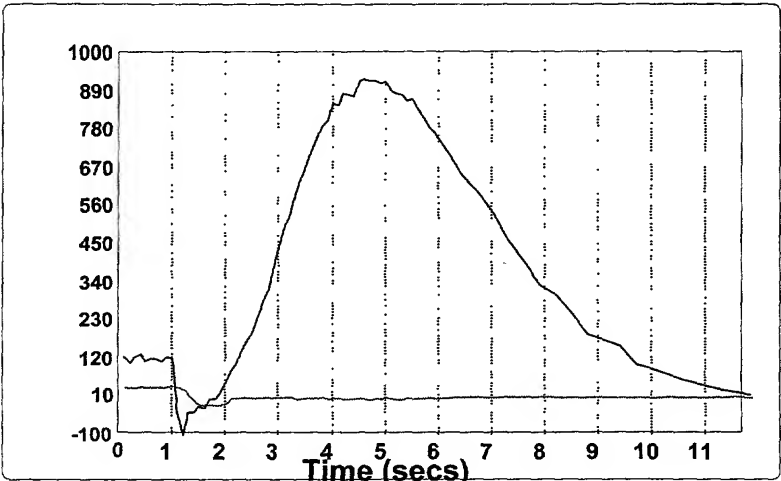


Figure 6: Stimulation of PFI-019 by UTP

